Journal of Analytical Chemistry 2004 vol.59 N11, pages 1025-1031

Electrocatalytic oxidation of hydroquinone and pyrocatechol at an electrode modified with a polyvinyl pyridine film with electrodeposited rhodium and its use in the analysis of pharmaceuticals

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Abstract

The electrochemical properties of a glassy-carbon electrode modified with a polyvinyl pyridine film with electrodeposited rhodium were studied. It was found that the electrodeposited rhodium particles exhibit electrocatalytic activity in the oxidation of hydroquinone and pyrocatechol. The catalytic effect manifested itself as a multiple increase in the saturation current of an organic compound. The modified electrode was used for determining adrenalin, noradrenaline, and dopamine bearing a pyrocatechol fragment in their structure in pharmaceuticals.

http://dx.doi.org/10.1023/B:JANC.0000047003.02044.6b